THE DEPOSIT-RESERVE SYSTEM OF THE NATIONAL-BANK LAW.

WHY should the law require a bank to keep a reserve against its deposits? It is readily conceded that the holder of a bank note is entitled to legal protection because he has usually no immediate connection with the bank whose notes he receives, frequently residing, as he does, at a great distance from the place of issue, and therefore has no acquaintance with the bank whose notes he receives. No objection is made to the proposition that the note holder should be properly protected by a reserve either of cash or securities. But with the depositor the case is different. He has frequent opportunities to scrutinize the condition of the bank with which he does business, and therefore, it is claimed, the law may safely leave him to care for his own safety. Then too, it is argued, the bank's own interest compels it to keep an amount of cash sufficient not only to meet all probable demands for cash, but even to allow an expansion of loans in time of special need without endangering the safety of its deposits. By following any other course than this, a bank forfeits the confidence of the community and with that confidence, its own opportunities of profit.

The reply to this argument, on the part of those who favor such a reserve requirement, is that the great majority of banks may indeed be trusted to conduct their business in a conservative manner, and that with these institutions the law is not in any way concerned. But on the other hand, as it is claimed, there is always a small class composed of reckless or ignorant bankers who, in their eagerness to secure a temporary profit, lose sight of their permanent interest, and allow their cash holdings to fall below the limit of safety. Then, when confidence is shaken, these institutions find great difficulty in paying their depositors, and it is usually out of the question for them

to satisfy the demand for new loans which always arises at such a time. To compel these bankers to properly conduct their business, legislation is advocated which will enforce upon all banks a certain minimum of reserve.

Without attempting to choose between the two theories, it is sufficient for the present purpose that the second is recognized by the national-bank law.[1] Banks in New York, Chicago, and St. Louis, are required to have on hand, at all times, an amount of lawful money equal to 25 per cent. of their deposits. Banks in certain other of the larger cities are required to keep the same proportion of reserve, but one-half of this amount they may deposit with the banks in the three cities above mentioned. National banks in these two classes of cities are designated by the law as reserve agents. All other banks organized under the system are required to hold a reserve equal in amount to 15 per cent. of their deposits, but three-fifths of this reserve they may deposit with the reserve agents. The law prohibits any national bank from making any new loan, or declaring any dividend after its reserve has fallen below the legal limit, and rests in the Comptroller of the Currency discretionary power, with the assent of the Secretary of the Treasury, to close any bank which shall fail, within thirty days after it has been notified that its reserve is below the requirement, to make good the deficiency.

The adequacy of these requirements should be considered from two standpoints, which correspond to the functions which a deposit reserve performs in the banking economy. In the first place, a reserve is the immediate protection which the bank gives to its depositors, the guarantee that their claims will be paid in cash whenever cash is demanded. Conversely, the necessity of maintaining a reserve of a certain amount fixes a limit beyond which the bank may not increase its loans without impairing the safety of its deposits. This limit may be either fixed or elastic. If the former, the bank is prohibited from increasing its loans when the amount of its reserve of cash equals a fixed per cent. of its deposit liabilities. An elastic reserve requirement, on the

[1] §§ 5191, 5192 of the National Bank Act.

other hand, enforces an amount of cash equal to all probable demands from depositors; and then, when need arises, permits the loans to be increased so that the reserve limit is temporarily exceeded. In times of special business strain an unusual demand for loans always arises from business men, who in larger numbers and to a greater extent than usual are seeking to convert their property into means of payment by obtaining bank loans on its security. It is of the highest importance that these demands should be promptly satisfied, since otherwise the losses which the community sustains from the failure of persons who have abnormally expanded their credit may be increased by the inability of even the most conservative and best-managed concerns to meet their obligations. If the reserve requirement is rigid, the banks can satisfy these extraordinary demands only by maintaining at all times a reserve in excess of the legal requirement, the amount of the surplus determining the power to make loans which they retain for emergencies. The maintenance of the reserve loaning power, however, is in this case left entirely to their own discretion, and in some bankers the desire for immediate return induces a reduction of the surplus to a point which leaves too small a margin. This often results to the detriment of depositors and borrowers. When, however, the reserve requirement is elastic, the banks are compelled by law to retain a reserve large enough to protect the depositors and at the same time respond to any unusual demand from borrowers by passing the required limit under proper restrictions. In the United States the bank-note issue, although fully secured, is extremely inelastic. It is the more important, therefore, that the bank deposits should respond to the varying demands of business. If there is any virtue in a reserve requirement, it should compel all banks not only to protect their depositors, but to keep themselves in position to supply the new loans which occasion may demand.

From the standpoint of elasticity, the reserve requirements of the national-bank law are defective. When the reserve of a national bank is below the legal limit, it is absolutely prohibited

from making any new loans. A violation of this requirement is ground for forfeiture of its charter. When the limit of required reserve has once been passed, although depositors may continue to draw out their funds as long as the bank remains solvent, the enlargement of its loan account is legally impossible. The sole element of elasticity in this requirement is the implied permission to extend old loans, and, although this is an important assistance to a hard-pressed borrower, it is plainly inadequate to the extraordinary demands for new loans which often occur. One result of this requirement has been to make lawbreakers of the most conservative bankers, and to endanger the charters of the foremost banks in the country. Necessity has frequently forced the banks to violate the law for weeks at a time.[1] To obey the law would be, in many cases, to endanger the safety of large enterprises, and to deprive a bank of some of its best customers. The comptroller has been practically compelled to wink at this practice. An attempt on his part to enforce the law would probably have aroused a storm of protest sufficient to compel an amendment.

The rigidity of the reserve requirement has compelled the banks to hold an amount of cash considerably in excess of the legal limit; and we have already seen that in most cases bankers may be safely trusted to guard their own interests and those interests of the community by maintaining a reserve large enough to meet special demands. If there is, however, as the national banking law presupposes, a class of banks which the law must control, it is unwise to leave to the discretion of their managers the determination of the amount of loan funds which they will keep in reserve. If these banks cannot be trusted to protect their depositors by an adequate reserve, it is unreasonable to expect that they will exercise an even greater amount of caution in maintaining a substantial surplus over the legal requirement.

[1] *Commercial and Financial Chronicle*, vol. xli. pp. 32, 314, 560, 916. In every stringency most of the New York banks allow their reserve to fall below the limit and remain in that condition for weeks at a time. Their loan accounts during this period rise and fall, though to a less extent than is usual.

Since the law provides a rigid reserve requirement, from the point of view of elasticity the size of the reserve which it requires is a matter of small consequence. It may even be urged that the lower are the requirements, the more likelihood is there that a margin of surplus reserve will be maintained. But for the protection of the bank's depositors, the amount of reserve required is important, especially since this protection of the depositor, as we have just seen, is the only service which the reserve requirement can perform.

The adequacy of the reserve requirements to protect the depositor may be determined by the criterion of the reserve actually held. We have already seen that the great majority of banks may be trusted to carry a sufficient reserve. If it is found that they have closely approximated in their cash holdings to the limit fixed by the law, after allowance is made for the surplus which the rigid reserve requirement obliges them to carry, it may be fairly presumed that, in the opinion of those best qualified to judge, the law gives ample protection to the depositor. But if the average of reserve held exceeds the requirement by more than this necessary surplus, the law must be condemned as inadequate. The law should certainly enforce upon the weak institutions the higher standard set by conservative bankers.

The nominal reserve requirement of the law is far below its actual amount. We have already mentioned the permission which the law gives to banks outside of the three central reserve cities to deposit a large part of their legal reserve outside their own vaults. These funds pass temporarily from the immediate control of the depositing bank and are made the basis of loans by the reserve agent. It is only a fiction of law which allows a national bank to count as a part of its cash reserve funds which may be deposited a thousand miles away.

We should know the exact extent to which the law allows banks outside of the three central reserve cities to reduce their cash holdings. If the reserve agents loan these funds on the basis of 1 to 4, as they are allowed to do, the reserve of the country bank, nominally 15 per cent. of its deposits, is in reality

reduced to 7.3 per cent., and of this 1.3 per cent. is deposited elsewhere; while the 25 per cent. reserve of banks in reserve cities is reduced to 15.6 per cent., of which only 12.5 per cent. is carried within their own vaults.[1]

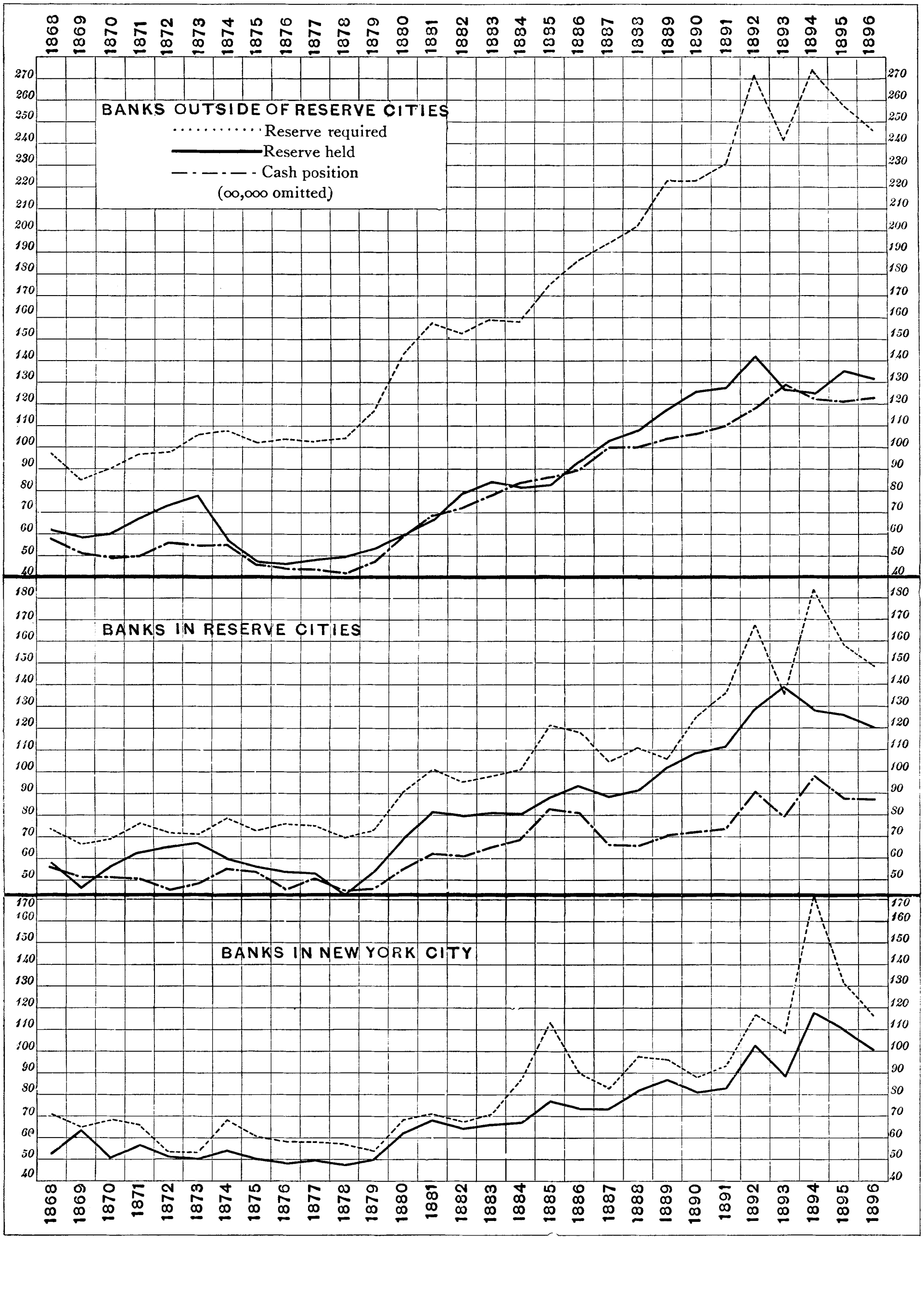
The same criterion of banking practice will determine the soundness of this provision. If it is found that the majority of banks have habitually availed themselves of the permission to deposit in reserve cities, no serious objection can be made to this part of the law.

In order to ascertain the reserves legally and actually held, we must distinguish the three classes of banks which the law recognizes. For each class it is desired to know (1) the reserve nominally required, (2) the reserve actually required, being two-fifths and one-half respectively of the legal reserve, (3) the balances due from reserve agents, and (4) the cash position.[2] All these estimates are to be found in the appendix. For clearness of comparison the statements of reserves required and held, and the cash position for the three classes of banks reduced to yearly averages, are represented on the accompanying chart.

Let us consider the several items in order, beginning with the banks outside of reserve cities. The line which represents the reserve legally held considerably exceeds the line of required reserve throughout the entire period. The excess ranges from 24.3 to 51.2 millions from 1868 to 1874; from 61.7 to 76.2 millions from 1874 to 1884; and from 92.5 to 129.5

[1] *A*, let us suppose, is a country bank which carries the legal reserve of 15 per cent. of its net deposits. Under the law it deposits $\frac{3}{5}$ of its reserve with *B* a reserve city bank, which retains $\frac{1}{4}$ of the funds deposited with it as a required reserve. The reserve of *A* now stands $\frac{2}{5}$ in its own vaults and $\frac{1}{4}$ of $\frac{3}{5}$ or $\frac{3}{20}$ in *B*. *B* now deposits $\frac{1}{2}$ of its legal reserve with *C*, a central reserve agent which in like manner retains $\frac{1}{4}$ as a reserve and loans the remainder. *A's* reserve now stands $\frac{2}{5}$ at home, $\frac{1}{2}$ of $\frac{3}{20}$ or $\frac{3}{40}$ with *B*; and $\frac{1}{4}$ of $\frac{3}{40}$ or $\frac{3}{160}$ with *C*, total cash holding in the three sets of banks against the deposits of *A* of $\frac{17}{35}$ of 15 per cent. or 7.3 per cent. *B's* reserve now stands $\frac{1}{8}$ in its own vaults and $\frac{1}{4}$ of $\frac{1}{8}$ or $\frac{1}{32}$ with *C*, a total cash holding against *B's* deposits of 15.6 per cent.

[2] Obtained by adding the amount of national bank notes held to the reserve held and subtracting therefrom the redemption fund, which the law allows the banks to include in their legal reserve, but which they do not control, added to the amount due from reserve agents.


BANKS OUTSIDE OF RESERVE CITIES
Reserve required
Reserve held
Cash position
(00,000 omitted)
BANKS IN RESERVE CITIES
BANKS IN NEW YORK CITY
1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896

millions from 1884 to 1897. It will be seen that this class of banks has steadily increased its surplus reserve. The cash actually held by the country banks closely follows the line of the required reserve. Although a large amount has been constantly on deposit with reserve agents—an amount approximately represented by the distance between the lines of reserve held and that showing the cash position—still these deposits have consisted of surplus funds, while the legal reserve has been but slightly impaired at any time.

Taking up in order the reserves of banks in reserve and central reserve cities; for the first named the reserve actually held is but little in excess of the legal requirement of one-fourth of the deposits. The excess ranges from 4.5 millions to 21.4 millions from 1868 to 1874; from 15.1 to 25.6 millions from 1874 to 1884; and from a deficiency of 2.4 millions in 1893 to 39.2 millions from 1884 to 1896. In this class of banks, as in the banks outside of reserve cities, the proportion of reserve has increased, but the excess over the required amount is no more than a safe margin for emergencies. The line representing the cash position of this class of banks is generally far below the line of required reserve; especially since 1885 the cash holdings have diminished.

New York may be taken as the best example of the central reserve cities. A reference to the chart will show that the reserves actually held by the national banks in this city have usually followed very closely the line of required reserve. The periods of large surplus have been exceptional. Their low reserves are to be partially explained by their higher requirement of cash holdings; and also by the stronger demand for loan funds which exists in the large cities. Similar conditions prevail in Chicago and St. Louis. In the last-named city the reserves held have been usually very low (see appendix).

The foregoing examination shows that the reserve requirements of the national banking law are inadequate to the protection of the depositor, so far as they refer to the banks outside of reserve cities. Measured by the standard which the majority of

the country banks have themselves erected, the 15 per cent. reserve is insufficient. The reserve constantly held, even after allowing for the necessary margin, is very considerably in advance of the legal requirement. The fact is strikingly illustrated after 1874. Before that time the reserve requirements had applied to circulating notes as well as to deposits. Since these notes were fully secured by bond deposit, and by provisions for redemption, this additional reserve materially improved the position of the depositor. The extent of this protection is indicated by the sudden fall in the line of required reserve, particularly for the country banks, which followed the removal of this requirement in 1874. The reserves actually held did not greatly diminish. The banks were evidently wiser than the law, and did not avail themselves of the opportunity to reduce their cash holding. The fact that so small a part of the legal reserve has been deposited with reserve agents furnishes additional evidence that the country banks considered it unsafe to take advantage of the permission which the law gave them to weaken their cash position.

The 25 per cent. requirement which the law imposes on national banks in reserve and central reserve cities may be considered as adequate for purposes of safety. The practice of these banks has been to approach as near to the legal limit as would leave them a safe margin for emergency loans. The excess over required reserve which they have habitually carried is no more than might be expected in view of the impossibility of legally exceeding the requirement. The chart also shows that that class of banks have not deposited the legal quota of their reserves with the central reserve cities. Although, in view of the higher requirements which the law imposes on them, their cash position, in relation to their required reserve, is less than in the case of the country banks, still the amount which they have kept on deposit with reserve agents is much less than 50 per cent. of their required reserve.

Our examination shows that the reserve system of the national-bank law, considered from the two standpoints of sufficiency for

the protection of the depositor, and elasticity for the accommodation of the business borrower, is not at all points to be commended. It does not permit its requirements to be exceeded when special demands arise for loans, and thus trusts to the prudence of individual bankers to provide a reserve large enough for emergencies. On the other hand, its requirements for reserve are far below the amount which the country banks have habitually carried, and the fact that they have not availed themselves of the opportunity which the law gives them to weaken their position by depositing two-thirds of their legal reserve in other banks shows that in their opinion it would not be safe to take advantage of this provision. While the 25 per cent. requirement for reserve cities is evidently sufficient for the protection of the depositor, as shown by the practice of these banks, yet here, as in the case just mentioned, the banks have not deposited the portion of their reserve in central reserve cities, which would have been permitted by the law.

A feature of the national banking law which has aroused much adverse criticism is its recognition of the practice of depositing a part of the required reserve with other banks. It has been claimed that this practice fostered speculation by the accumulation of idle funds; that it was the cause of periodical stringencies in the money market when these funds were called for; and that the severity of panics was also greatly increased by the difficulty of obtaining the funds so deposited.

This practice merits examination both in order to test the justice of the criticism, and also to define the measure of responsibility which rests upon the national banking law for allowing it to continue.

The practice of centralizing reserves is one of the consequences of our inelastic system of bank-note issue. During the late summer and fall a large demand for currency is created in the West and South by the marketing of the crops. The limited knowledge of banking practice which prevails in these sections does not allow the free use of the elastic deposit currency. A large amount of cash is, therefore, required. This money

soon passes back from the farmers to the banks, and for the rest of the year, for most of it, no safe and profitable employment can be found in the immediate vicinity, owing to the small development of manufactures in these sections. In the large cities the demand for loan funds is more constant. This demand comes from merchants and manufacturers, and to a large extent from speculators in produce and securities, who wish short loans to carry their stocks. The banks in these cities can therefore afford to pay a low rate of interest on outside bank deposits, or to perform gratuitously certain services for their country correspondents in order to induce the latter to deposit their surplus funds with them. Figures given in the appendix will show to what an extent this practice is carried. The total amount of balances due from reserve agents have frequently amounted to 200 millions. These outside deposits are generally loaned on call, in part because it is necessary for the depository banks to keep them well in hand, and also because the capital and local deposits of the reserve agents are sufficient to satisfy most of the desirable borrowers. Some effect is, however, produced upon the rate for time loans.

These deposits can be calculated upon with tolerable certainty during eight months of the year, and in normal years it is equally certain that a large part of them will be required to move the crops.[1] Most of this demand naturally falls upon New York, which is the great reservoir for the surplus funds of the country. The withdrawal usually results in a hardening of the interest rates. In order to obtain the currency required, the banks are obliged to curtail their loans and even to call some of them when the demand is unusually heavy. The raising of the rates however is usually sufficient to bring in enough currency to satisfy the demand. When the reserve-city banks have prepared for this fall demand, no serious inconvenience is suffered from this withdrawal of funds. Regular customers have usually little difficulty in getting accommodation, and the higher

[1] Temporary withdrawals also occur for the yearly settlements in January and April, and also to some extent for the quarterly payments of interest and dividends.

interest which they pay does not offset the advantage which they derive from the low rates prevailing during most of the year. The speculators are also burdened to some extent by the higher rates on call loans, but they too have profited, even more than the time borrowers by excessively low rates; while to their operations, except in the case of produce speculators, the public is rightly indifferent. The class most seriously affected is composed of those borrowers who deal through note brokers. During the drains from the country, banks do not ordinarily purchase commercial paper to any large amount, since their funds are occupied in accommodating their regular customers. It is a fair presumption that the loss which they suffer at such times does not offset the advantage of larger borrowing at lower rates which is derived from this indirect method of dealing, since the practice has been steadily increasing.[1] In later years their wants have been more largely supplied by trust companies and private bankers.[2]

The country banks have usually no trouble in obtaining their deposits. The reserve agents, although not legally required to do so, treat their deposits as prior claims, whenever it is possible, and make every effort to pay them promptly. In ordinary seasons, then, the centralization of reserves gives little trouble, while its advantages are manifest. The country bank receives interest on funds which would otherwise be idle. The depository banks make substantial profits from handling these funds. The great manufacturing and commercial interests are accommodated with loans at low rates of interest, while the farmers receive higher prices for their products which the middle men are enabled by this system to carry more cheaply.

The charge that centralized reserves foster speculation can be accepted only in a modified form. Speculation is mainly dependent on favorable industrial conditions which increase the earnings of corporations and give a hopeful tone to the market.

[1] *Bankers' Magazine*, New York, vol. xxxvii. p. 809, vol. xlviii. p. 3.

[2] The trust companies are subject to no reserve requirement, and usually carry a relatively insignificant amount of cash.

Abundance of money taken by itself will not create speculation. Instances are numerous in which abnormally low rates have failed to produce a sensible effect upon the stock market; and conversely, as in 1879 and in 1880, very active buying has been carried on in the face of a monetary stringency. Only when abundance of loan funds coincides in point of time with favorable industrial conditions is speculation greatly encouraged by the centralization of reserves, and this coincidence is the less probable since favorable industrial conditions usually imply a stronger demand for currency the country over, and therefore a smaller surplus than is usual. In general, therefore, the centralization of reserves is to be commended as a means of more effectively utilizing the idle money of the country.

The satisfactory working of this system largely depends on conditions which allow the ready conversion of loans into cash. If an unexpected demand is made upon the reserve cities, or if for any reason the banks at the reserve centers have failed to strengthen their cash position in anticipation of the regular demands, then serious consequences may result from this disposition of the surplus reserves. Examples of each case occurred during the period 1871–1873. In October 1871 the Chicago fire caused a sudden and heavy withdrawal of currency by the western banks. During the preceding summer the banks had greatly expanded their loans and were unprepared for the demand. In New York the loan rates rose to enormous figures; borrowers were unable to obtain accommodations, and business was seriously hampered. Owing to the industrial activity caused by the building operations after the fire, the funds sent out failed to return. All through 1872 and the first eight months of 1873 a serious stringency prevailed. The surplus reserves remained low, and high rates of interest did not enable the banks to recover their position. The demands of 1872 were met with difficulty, and in the following year, when the regular fall demands for money fell upon the depleted reserves of the New York banks, they were unable to respond and at the same time carry their large line of call loans which had been chiefly made on

railway securities, and they were compelled to call them in. The panic of 1873 was the result, not of unhealthy industrial conditions, for the railroad earnings of that year were higher than ever before, but of a complication of circumstances which tied up the bank reserves of the country in such fashion that their withdrawal broke down the stock market.[1] Later panics have repeated these experiences. When an unexpected demand for currency finds the central bank reserves low, these funds cannot be obtained without curtailing their time loans or calling in so large an amount of call money as to seriously weaken the stock market, even to the extent of endangering the safety of their collateral. The usual result is that the borrowers on call are favored at the expense of time borrowers; which may seriously hamper business, even to the extent of arresting the movement of products to the seaboard from the inability of exporters to negotiate bills of exchange.[2] In extreme cases, as in 1893, inland banks have been unable in some cases to obtain their funds from reserve agents, and it has been claimed that many suspensions have resulted from this cause.[3] The centralization of reserves may thus be fairly charged with increasing the severity of commercial crises.

It will now be well to note the various expedients which have been employed to prevent these contingencies. A panic, or even a severe stringency, renders its own immediate recurrence extremely improbable. During the years immediately following our three crises since 1872 the large accumulations of idle money in the centers, due to the general stagnation of business, have insured an easy loan market, no matter what might be the demands for industrial purposes. In the same way a stringency caused by an industrial revival, as in 1879, is seldom repeated in the year following. The money sent out does not return and is available elsewhere to meet the fall demands. Low prices, which at the same time require less

[1] *Commercial and Financial Chronicle*, vol. xvii. p. 404.

[2] As for example in 1890.

[3] See A. D. NOYES, "The Banks and the Panic of 1893," *Political Science Quarterly*, March 1894.

money to move a given amount of produce, and by discouraging buying reduce the amount offered for sale, mitigate the severity of the strain.

There are also various legislative expedients. Before 1874 the periodical accumulation of national bank notes in the centers increased the possibilities of trouble. The banks were not allowed to include these notes within legal reserves; they were not allowed to refuse them as deposits, and banking courtesy forbade them to send the notes home for redemption. In the endeavor to dispose of them the notes were frequently sold at a discount, or loaned for short periods without interest, repayment in legal tenders being stipulated.[1] This practice tended to increase inflation, and therefore to increase the difficulty of preparing for the fall demand. The bank act of 1874 remedied this evil by establishing a redemption bureau. The national bank notes which accumulate in eastern cities are now immediately sent to Washington and exchanged for legal tenders. From the redemption bureau they are speedily returned to their issuers for redemption.[2] Another remedy has been furnished by the law requiring the Secretary of the Treasury to purchase bonds with his surplus funds. It has long been the policy of the government to regulate its disbursements with reference to the needs of the money market. Bond purchases, during the years when the treasury was buying, regularly increased during the late summer and fall; and the increased supplies of money which have thus been furnished to the market have several times prevented a stringency.[3] By withdrawing money from circulation during the months when it is redundant, and disbursing it when need arises, the treasury has, to a large extent, supplied the lack of an elastic reserve system. The method of relief is available only while a surplus exists, but at all times, by anticipating interest payments and by depositing

[1] *Commercial and Financial Chronicle*, vol. xii. p. 136.

[2] These redemptions average about 120 millions each year.— See *Comptroller's Report*, 1896, p. 536.

[3] *Finance Report*, 1896, pp. 59, 128–131. See also *Commercial and Financial Chronicle* during 1870–1 and 1886–1889.

public money in banks, the treasury has been able to assist the money market. Gold imports have furnished a means of relief. These annually increase during the fall months in response to higher interest.[1]

The banks themselves have grown more cautious. They have been more careful in late years to prepare for the fall demand. If the central banks at all times maintained a substantial surplus of reserve, the possibilities of stringency would be greatly diminished. The steady growth in the knowledge of the nature and uses of the deposit currency bids fair to greatly diminish the demands for cash for buying the crops.

We have already observed that the national banking law has been held accountable for the evils of centralized reserves because it recognizes and sanctions the practice. In 1874, when the amendment of the law was under discussion, a proposition was made by the finance committee of the senate to compel the banks to retain their reserves in their own vaults. The proposition failed of adoption, mainly because it was objectionable to the inflationists, who feared that it meant a contraction of the currency.[2] The early reports of the comptroller vigorously denounce the system.[3] In the discussion following the panic of 1893 a regulation similar to that proposed in 1874 was vigorously advocated;[4] and the monetary commission was strongly urged to include this among its recommendations for banking reform. The difficulty has also been assigned to the practice of paying interest on deposits, and the New York clearing house has on several occasions urged the abandonment of this practice.[5]

The chart (p. 214) will show that the first of these proposed remedies would not be altogether adequate. As has been

[1] *Finance Report*, 1895, pp. 110, 111, 112.

[2] See *Congressional Globe*, second session, XLII Congress, part 2. pp. 1241, 1764, 2250–2251, 3840, 5185.

[3] See *Comptroller's Report*, 1866, p. vii; 1867, p. viii; 1868, p. xxii.

[4] See the editorial pages of the *Bankers' Magazine* for 1894 and the early part of 1895.

[5] *Commercial and Financial Chronicle*, vol. xvii. p. 652. *Bankers' Magazine*, New York, vol. xx. pp. 124, 125.

already remarked, the great majority of banks have habitually carried an amount of lawful money approximating very closely to their required reserves. Their deposits with reserve agents have mainly consisted of their surplus reserves, with which the law is not in any way concerned. If they were required to retain their legal reserves at home, some effect might be produced in contracting their deposits in the centers in order to increase the surplus held in their own vaults ; but unless the reserve requirement were materially increased, the existing practice would not be greatly modified. The prohibition of interest on deposits would probably have the effect of throwing a large part of the surplus funds into the state and private banks, and the trust companies, and, as already remarked, the payment of interest is not the only inducement offered.

The real difficulty lies in the nature of our system of note issue. If the banks were allowed to supply these periodic demands for cash by the issue of their notes based on assets, little trouble would ordinarily be experienced in meeting these extra demands for cash. The crops would be moved by an elastic medium of bank notes, which could be retired when it was no longer needed. In the case of a money panic, however, the probable result is more doubtful.

EDWARD S. MEADE.

UNIVERSITY OF CHICAGO.